

2643

2643a

2643b

D.E.N  
9-23-98

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Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*

Field No. Office No. *2643*

LOCALITY

State *Florida*

General locality *South West*

Locality *Channel approaches to Key West Harbor*

1903

CHIEF OF PARTY

*P. A. Velker*

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Assistant in charge of the Office.

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Treasury Department,  
U. S. COAST AND GEODETIC SURVEY.

*D. H. Pittman*  
Superintendent.

State: *Florida.*

DESCRIPTIVE REPORT.

*Hydrographic Sheet No. 2643.*

LOCALITY:

*South West Channel,  
Approaches to Key West  
Harbor, Florida.*

1903.

CHIEF OF PARTY:

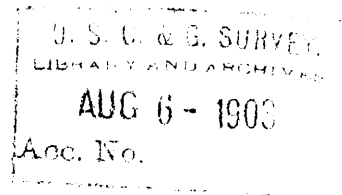
*P. A. Walker, Assist.*

2643

POST-OFFICE ADDRESS: U.S.S. BACHE,

TELEGRAPH ADDRESS:

EXPRESS OFFICE:



U. S. COAST AND GEODETIC SURVEY. Str. "Bache",

Mr. O. H. Tittmann,

Superintendent, Coast and Geodetic Survey,

Washington, D. C.

S i r :-

In obedience to Instructions and Memoranda for Descriptive Reports, 1887, I have the honor to submit the following report on Hydrographic Sheet, Nos. 2643:

The work consists of an hydrographic resurvey of the South West Channel, entrance to Key West Harbor, Florida. Of the five developed channels into this harbor this one is probably used as little as any, as the West, Main Ship and South East Channels are more convenient and safer for entering.

The character of the bottom is mostly very hard and irregular in contour. Numerous coral heads are to be found and the narrow channel cannot be considered safe for vessels drawing as much as 24 feet. Even with less depth it should be navigated very cautiously. The shoals and coral heads rise very abruptly from deep water

and the lead cannot be relied upon for giving warning in approaching the same.

Owing to the strong currents sweeping around the shoals, compass courses cannot be relied upon unless corroborated by other evidence. It frequently happens that the current upon one side of the channel will be running in almost an opposite direction to that upon the other.

The system used in developing the channel was to run lines approximately parallel with its axis at a distance of from 25 to 70 metres apart, crossing this system by another at about right angles and with lines about the same distance apart. In addition all spots showing indications of coral heads or shoals were developed and the part of the channel showing the best water was swept by a drag.

No further descriptive report is considered necessary.

Respectfully yours,

*P. A. Walker*

Assistant, U.S.C. & G. Survey,

Commanding.

Report  
on  
Hydrographic Sheet  
No. 2843.  
Approaches to Key West,  
The Anchorage-West Channel,  
Florida.  
Assistant Vinal,  
1905.

The tide gauge used for the reduction of soundings should be noted at the beginning of each day's record.

Leadline correction should be applied to reduced soundings and so noted, that the correction can be made with certainty. (See notes on verification of Hyd. Sheet 2843 for comment on result of operations with drag and use of fractions in sounding and plotting.)

The work is incomplete and does not develop the area covered; but is of good quality apparently.

1/20/04.

J. T. Watkins. (Signed).

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REPORT  
on  
HYDROGRAPHIC SHEET  
No. 2648.  
Approaches to Key West,  
Southwest Channel,  
Fla.  
Assistant Welker,  
1903.

A fruitful source of error is found in the records of this sheet and in the plotted work. The attempt to attain a degree of precision was made impossible by both the conditions of wind, wave and current prevailing over the area surveyed and the inherent limitations of the available methods applicable to such work. (See ver. 2649.) An extreme case is noted where a sounding determined in the usual way is recorded 7 fathoms 5.8 feet. This is not "reduced sounding"; but the observed depth, and was taken 3/4 hr. after the remark "Wind freshening" was entered.

Why the soundings should not have been plotted to 1/4 ft. to 6 fathoms, need not be pointed out. That they were is regrettable.

Lead-line corrections entered in the record were not applied to reduced soundings, for the apparent reason that the notes relating to the corrections were incomplete and impossible of interpretation.

The most unsatisfactory feature of the survey is the inconclusive results of the work of the Drag.

In several instances the records fail to state clearly whether or not the evidence of the "sweep" having

been in contact with the bottom was sufficient to warrant the plotting of the depth indicated; whether further search was made, etc. In some cases the notes relating to an apparent "strike" are conflicting and serve only to increase the doubtfulness of the result. At several points the subsequent examinations do not cover well the areas in question.

It appears that the drag is structurally weak when the vessel is moving in any direction other than ahead in a right line and at moderate speed. Reports on its behavior under various circumstances are desired.

The survey is good and for completeness lacks only the development of shoal areas as will appear from an examination of the sheet.

1/20/04.

J.T. Watkins. (Signed).

2643<sup>a</sup>

This sheet has not been verified.  
It is included only as a diagram  
of positions for Hyd. Sheet 2643<sup>a-2</sup>  
1-18-04 J.D.W.

Treasury Department  
Coast & Geodetic Survey  
O. H. Tittmann Supr  
Approaches to Key West Harbor  
SW Channel.

Florida

Det P. A. Metter Chief of Party  
Steamer Bache

Began April 4

Ended June 2

1903

Scale 1-15000

Stat mi  
Naut mi.

Registry No 2643<sup>a</sup>

See sheet 2643<sup>a(2)</sup> 5000 for tide notes Curves &c

All soundings were plotted to 36 ft in - position soundings, but beyond 36 ft. Characteristic soundings are inked

Plotted in ink & furnished by F.C. Owen



26436

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*Treasury Dept*  
DEPARTMENT OF COMMERCE AND LABOR

Coast and Geodetic Survey

O. H. Tittmann, Supt.

~~Drag Sheet, S. W. Channel~~  
(2)

Approaches to Key West  
(1)

Florida.

Assistant, P. A. Welker, Chief of Party

Steamer BACHE

Begun May 22

Ended June 6

1903

Scale: 1:15000

*Plotted by the Coast and Geodetic Survey by F. C. Dorn  
Verified by J. H. Atkins*

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JUL 27 1903

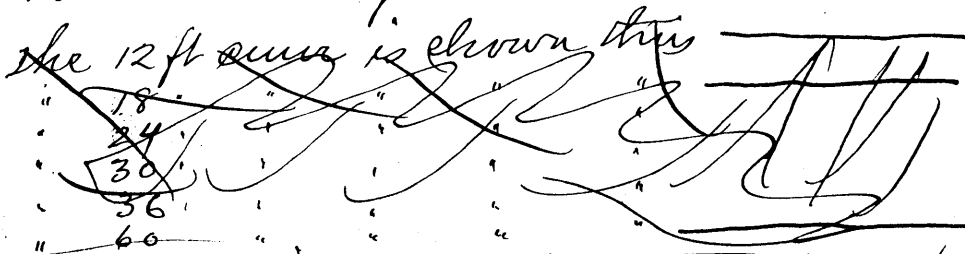
Acc. No.

STATISTICS.

Date	Lat.	Vol.	Sdg's	Angles	Miles	Boat.	
May	22	V	8	213	132	4.0	Str. "Bache"
	23	W	8	175	94	4.5	" "
	25	X	8	417	222	11.0	" "
	26	Y	8	454	188	6.0	" "
	27	Z	8	258	132	6.8	" "
June	5	A	9	372	194	10.0	" "
	6	B	9	795	408	20.5	" "
	7	2	2	2684	1350	62.8	" "
<del>June</del>	<del>1</del>	<del>M</del>	<del>4</del>	<del>842</del>	<del>202</del>	<del>12.0</del>	<del>Launch No. 355</del>
	<del>2</del>	<del>N</del>	<del>4</del>	<del>828</del>	<del>280</del>	<del>10.0</del>	<del>" "</del>
	<del>2</del>	<del>1</del>	<del>1</del>	<del>1468</del>	<del>462</del>	<del>22.0</del>	<del>" "</del>
June	6	A	14	499	226	11.4	"Hydrographer"
Grand Total	10	4	4351	2038	96.2		
	8	3	3183	1576	74.2		

A day transferred  
to Hyd. sheet 2643<sup>22</sup>

The soundings are expressed in feet and show the depth at Mean Low water -



All soundings have been transferred from this sheet to sheet 2643<sup>22</sup> 500 and shown in colors to represent different depths of drag - The curves are drawn on that sheet.